

Amendment

Serial No. 10/798,037

CARDIAC-PREFERRED GENETIC ALTERATION OF TRANSGENIC RABBITS
Docket No. : CHM02-GN054

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IN THE CLAIMS:

THAT WHICH IS CLAIMED:

1-9. (Cancelled)

10. (Original) A transgenic rabbit comprising in its genome at least one stably incorporated expression cassette comprising:

a.) a promoter, wherein said promoter comprises a nucleotide sequence selected from the group consisting of:

- i.) a nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:2;
- ii.) a nucleotide sequence having at least 90% identity to a nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:2, wherein said nucleotide sequence is capable of initiating transcription in an animal cell; and
- iii.) a nucleotide sequence comprising at least 50 contiguous nucleotides of a nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:2, wherein said nucleotide sequence is capable of initiating transcription in an animal cell; and

b.) a heterologous nucleotide sequence operably linked to said promoter.

11. (Original) The rabbit of claim 10, wherein said promoter is capable of initiating tissue-preferred transcription.

12. (Original) The rabbit of claim 11, wherein said tissue-preferred transcription is cardiac-preferred transcription.

13. (Original) The rabbit of claim 12, wherein said cardiac-preferred transcription is ventricle-preferred transcription.

14. (Original) The rabbit of claim 12, wherein said cardiac-preferred transcription is atria-preferred transcription.

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15. (Original) The rabbit of claim 10, wherein said rabbit exhibits altered expression of the heterologous nucleotide sequence.

16. (Original) The rabbit of claim 10, wherein said expression is cardiac-preferred expression.

17. (Original) The rabbit of claim 10, wherein said heterologous nucleotide sequence comprises a nucleotide sequence selected from the group consisting of:

- a.) a nucleotide sequence set forth in SEQ ID NO:3;
- b.) a nucleotide sequence having at least 95% identity to the nucleotide sequence set forth in SEQ ID NO:3;
- c.) a nucleotide sequence encoding a polypeptide having the amino acid sequence set forth in SEQ ID NO:4; and
- d.) a nucleotide sequence encoding a polypeptide having at least 95% identity to the amino acid sequence set forth in SEQ ID NO:4.

18. (Original) The rabbit of claim 17, wherein said promoter is capable of initiating ventricle-preferred transcription and said rabbit exhibits altered myosin isoform expression.

19-34. (Cancelled)

35. (Original) A transgenic rabbit comprising in its genome at least one stably incorporated expression cassette comprising:

- a.) a promoter, wherein said promoter comprises the nucleotide sequence set forth in SEQ ID NO:1; and
- b.) a heterologous nucleotide sequence operably linked to said promoter.

36. (Original) A transgenic rabbit comprising in its genome at least one stably incorporated expression cassette comprising:

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- a.) a promoter, wherein said promoter comprises a nucleotide sequence having at least 90% identity to the nucleotide sequence set forth in SEQ ID NO:1, wherein said nucleotide sequence is capable of initiating transcription in an animal cell; and
- b.) a heterologous nucleotide sequence operably linked to said promoter.

37. (Currently Amended) A transgenic rabbit comprising in its genome at least one stably incorporated expression cassette comprising:

- a.) a promoter, wherein said promoter comprises the nucleotide sequence set forth in SEQ ID NO:2; and
- b.) a heterologous nucleotide sequence operably linked to said promoter; wherein said rabbit exhibits an altered susceptibility to cardiopathy.

38. (Currently Amended) A transgenic rabbit comprising in its genome at least one stably incorporated expression cassette comprising:

- a.) a promoter, wherein said promoter comprises a nucleotide sequence having at least 90% identity to the nucleotide sequence set forth in SEQ ID NO:2, wherein said nucleotide sequence is capable of initiating transcription in an animal cell; and
- b.) a heterologous nucleotide sequence operably linked to said promoter; wherein said rabbit exhibits an altered susceptibility to cardiopathy.

39. (Currently Amended) A transgenic rabbit comprising in its genome at least one stably incorporated expression cassette comprising the nucleotide sequence set forth in SEQ ID NO:5, wherein said rabbit exhibits altered cardiac contractility.

40-49. (Cancelled)

50. (Newly Added) A transgenic rabbit comprising in its genome at least one stably incorporated expression cassette comprising:

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a.) a promoter, wherein said promoter comprises a nucleotide sequence selected from the group consisting of:

- i.) a nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:2;
 - ii.) a nucleotide sequence having at least 90% identity to a nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:2, wherein said nucleotide sequence is capable of initiating transcription in an animal cell; and
 - iii.) a nucleotide sequence comprising at least 50 contiguous nucleotides of a nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:2, wherein said nucleotide sequence is capable of initiating transcription in an animal cell; and
- b.) a heterologous nucleotide sequence operably linked to said promoter, wherein said rabbit exhibits an altered susceptibility to cardiopathy.

51. (Newly Added) A transgenic rabbit comprising in its genome at least one stably incorporated expression cassette comprising:

a.) a promoter, wherein said promoter comprises a nucleotide sequence selected from the group consisting of:

- i.) a nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:2;
- ii.) a nucleotide sequence having at least 90% identity to a nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:2, wherein said nucleotide sequence is capable of initiating transcription in an animal cell; and
- iii.) a nucleotide sequence comprising at least 50 contiguous nucleotides of a nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:2, wherein said nucleotide sequence is capable of initiating transcription in an animal cell; and

b.) a heterologous nucleotide sequence operably linked to said promoter, wherein said heterologous nucleotide sequence comprises a nucleotide sequence selected from the group consisting of:

- i.) a nucleotide sequence set forth in SEQ ID NO:3;
- ii.) a nucleotide sequence having at least 95% identity to the nucleotide sequence set forth in SEQ ID NO:3;

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iii.) a nucleotide sequence encoding a polypeptide having the amino acid sequence set forth in SEQ ID NO:4; and

iv.) a nucleotide sequence encoding a polypeptide having at least 95% identity to the amino acid sequence set forth in SEQ ID NO:4;
and wherein said rabbit exhibits altered cardiac contractility.

52. (Newly Added) A transgenic rabbit comprising in its genome at least one stably incorporated expression cassette comprising:

a.) a promoter, wherein said promoter comprises a nucleotide sequence selected from the group consisting of:

i.) a nucleotide sequence set forth in SEQ ID NO:2;

ii.) a nucleotide sequence having at least 95% identity to a nucleotide sequence set forth in SEQ ID NO:2, wherein said nucleotide sequence is capable of initiating transcription in a rabbit cell and wherein said transcription is ventricle-preferred; and

iii.) a nucleotide sequence comprising at least 100 contiguous nucleotides of a nucleotide sequence set forth in SEQ ID NO:2, wherein said nucleotide sequence is capable of initiating transcription in a rabbit cell and wherein said transcription is ventricle-preferred; and

b.) a heterologous nucleotide sequence operably linked to said promoter, and said rabbit exhibits an altered susceptibility to cardiopathy.

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